

KOPYAKOVSKIY, Yu. I., Cand. Medic. Sci. (diss) "Para-sagittal
Menin-"geoma" of Brain," Kiev, 1961, 17 pp. (Kiev Med. Inst.)
300 copies (KL Supp 12-61, 285).

GLUSHKOVA, I.S.; KANYUKA, Yu.I.; KOPYAKOVSKIY, Yu.I.; KOROL', A.P.;
LAPONOGOV, O.A.; YANOVSKIY, G.I.

Focal and general brain symptoms of supratentorial tumors of varying
histostructure. Probl.neirokhir. 4:19-32 '59. (MIRA 13:11)
(BRAIN--TUMORS)

KOPYATKEVICH, L.V.

Nature of wedge-out and rational principles for mapping ore bodies
in Dzhezkazgan type deposits. Izv. AN Kazakh. SSR. Ser. geol. 21
no.5:101-108 S-O '64. (MIRA 18:5)

1. Institut geologicheskikh nauk im. K.I. Satpayeva AN KazSSR,
Alma-Ata.

SHLYGIN, Ye.D.; ZHUKOV, M.A.; KOPYATKEVICH, R.A.

Tectonics and the geological history of the central part of
the eastern Kokchetav Trough (northern Kazakhstan). Sbor.nauch.
trud.KazGMI no.18:214-230 '59. (MIRA 15:2)
(Kokchetav Province--Geology)

KOPYATKEVICH, R.A.; FRID, N.M.

Volcanic formations of the Bel'-Su series of the Lower and
Middle Ordovician. Trudy Inst. geol. nauk AN Kazakh. SSR 13:
121-144 '65. (MIRA 19:1)

ZHUKOV, M.A.; KOPYATKEVICH, R.A.

Famennian marine deposits in Kokchetav Province. Vest. AN Kazakh.
SSR 16 no.1:85-88 Ja '60. (MIRA 13:5)
(Kokchetav Province--Geology, Stratigraphic)

ABDULKABIROVA, M.A.; ALEKSANDROVA, M.I.; AFONICHEV, N.A.; BANDALETOV, S.M.; B.SPALOV, V.F.; BOGDANOV, A.A.; BOROVNIKOV, L.I.; BORSUK, B.I.; BORUKAYEV, R.A.; BUVALKIN, A.K.; BYKOVA, M.S.; DVORTSOVA, K.I.; DEMBO, T.M.; ZHUKOV, M.A.; ZVONTSOV, V.S.; IVSHIN, N.K.; KOPYATKEVICH, R.A.; KOSTENKO, N.N.; KUMPAN, A.S.; KURDYUKOV, K.V.; LAVROV, V.V.; LYAPICHEV, G.F.; MAZURKEVICH, M.V.; MIKHAYLOV, A.Ye.; MIKHAYLOV, N.P.; MYCHNIK, M.B.; NIDLENKO, Ye.N.; NIKITIN, I.F.; NIKIFOROVA, K.V.; NIKOLAYEV, N.I.; PUPYSHEV, N.A.; RASKATOV, G.I.; RENGARTEN, P.A.; SAVICHEVA, A.Ye.; SALIN, B.A.; SEVRYUGIN, N.A.; SEMENOV, A.I.; CHERNYAKHOVSKIY, A.G.; CHUYKOVA, V.G.; SHLYGIN, Ye.D.; SHUL'GA, V.M.; EL'GER, E.S.; YAGOVKIN, V.I.; NALIVKIN, D.V., akademik, red.; PERMINOV, S.V., red.; MAKNUSHIN, V.A., tekhn.red.

[Geological structure of central and southern Kazakhstan]

Geologicheskoe stroenie TSentral'nogo i IUzhnogo Kazakhstana.

Leningrad, Otdel nauchno-tekhn.informatsii, 1961. 496 p.

(Leningrad. Vsesoiuznyi geologicheskii institut. Materialy, no.41)

(MIRA 14:7)

* (Kazakhstan--Geology)

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S/179/60/000/01/001/034

E031/E535

AUTHORS: Avduyevskiy, V.S. and Kopyatkevich, R. M. (Moscow)

TITLE: Calculation of the Laminar Boundary Layer in a Compressible Gas with Heat Transfer and an Arbitrary Pressure Distribution Along the Surface

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, Nr 1, pp 3-11 (USSR)

ABSTRACT: An approximate calculation of the laminar boundary layer for an arbitrary pressure distribution, based on the use of integral expressions and additional relations between the heat flows, friction stresses and the local characteristics of the boundary layer for an incompressible fluid were developed in Ref 1. Exact solutions for a special case were derived in Ref 2. Similar solutions were obtained in Ref 3 for the case of a compressible fluid with heat transfer by an approximate method based on the use of integral impulsive relations. This method is unsuitable for regions of maximum pressure gradient and maximum heat flow. In this paper a more general class

Card 1/4

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E031/E535

Calculation of the Laminar Boundary Layer in a Compressible Gas with Heat Transfer and an Arbitrary Pressure Distribution Along the Surface

of similar solutions is considered and an approximate method for supersonic flows with a large pressure gradient is proposed. A laminar boundary layer in steady axisymmetric flow of a compressible fluid along a curved surface with a Prandtl number of unity is discussed. A transformation to plane flow is introduced, new variables are chosen and after choice of a particular velocity profile, $U_1 = cx^m$, a further change of variable is made. For some values of $\beta = 2m/(m + 1)$ numerical solutions have been obtained on digital computers (Refs 2,3). The investigation is here carried out at higher values of β , a simplification being made in considering a thermally isolated surface. It appears that for $2 < \beta$ the simplification introduces a deformation of the velocity profile which is insignificant. Attention is now focussed on the second of the two ordinary differential equations which were obtained from the initial partial differential equations with the aid of the

Card 2/4

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E031/E535

Calculation of the Laminar Boundary Layer in a Compressible Gas
with Heat Transfer and an Arbitrary Pressure Distribution Along
the Surface

transformations mentioned above. From this equation the temperature profile can be obtained. In the next section flow at an arbitrary velocity inside the boundary layer is considered, starting from an integral expression for the energy, and assuming that the temperature at some part of the wall is constant and that the velocity and temperature profiles are functions of a single parameter. Analysis shows that this parameter enters the differential equation for the energy linearly. Solution of the equation and the expression for the parameter are quoted. In these general expressions the consequence of putting the wall temperature constant is followed out. The following special cases are mentioned briefly: 1) plane axisymmetric flow round a blunt-nosed body; 2) supersonic flow round a sharp leading edge; 3) subsonic flow over a wedge. Finally the case of a given temperature variation on the

Card 3/4

KRYUCHKOV, G.; KOPYCH, L.

Power of competition. Avt.transp. 40 no.10:8 0 '62. (MIRA 15:11)

1. Bobruyskiy avtobusnyy park. 2. Sekretar' partiynogo byuro
Bobruyskogo avtobusnogo parka (for Kryuchkov).
(Bobruysk--Transportation, Automotive)

175200

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SOV/123-59-24-101754

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 24, pp 132 - 133 (USSR)

AUTHOR: Kopychev, A.

TITLE: Hard-Alloy Tools for High-Speed Cutting

PERIODICAL: Byul. tekhn. inform. Dnepropetr. obl. otd. 0-va po rasprostr. polit. i nauchn. znaniy UkrSSR, 1957, Nrs 4 - 5, pp 57 - 58

ABSTRACT: The author describes a hard-alloy cutting-off tool (T) of rigid construction for the cutting of machine parts of up to 600 mm in diameter, which is used at the Dnepropetrovsk Metallurgical Equipment Plant. The T consists of the holder and, fixed to it, a plate with soldered-on hard-alloy bit. The T is easily and accurately adjusted on the machine tool and ensures operation without vibration and jamming of the chip in the cut-out groove, moreover it is simple to manufacture. A generous application of cooling fluid increases the durability of the T up to 30%. The cutting conditions employed ensure a T durability of 120 min, when structural steel with a yield strength of 60 kg/cm² is machined. The T possesses a principal angle in the plane of 30° and an angle at the top of

Card 1/2

Hard-Alloy Tools for High-Speed Cutting

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120°. With such angle values the total length of the cutting edge, being in contact with the machined item, is increased, and the axial cutting stresses, which to a considerable degree determine the magnitude of vibrations, are reduced. The T can be used on any kind of lathe or vertical boring and turning mill. Practice confirmed that the T possesses good cutting properties both for the cutting of steel and for the cutting of cast iron and non-ferrous metals. In some cases cutting-off time was reduced by 5 times. Three figures. 4

M.B.P.

Card 2/2

KOPYCHEV, A.M.

AUTHORS: Khmelevskiy, S.A., Candidate of Technical Sciences, Moysik, M.R., Kopychev, A.M., Engineer

SOV/117-58-11-23/36

TITLE: The Machining of Steel by Mineral-Ceramic Cutters (Obtochka stali mineralokeramicheskimi reztsami)

PERIODICAL: Mashinostroitel', 1958, Nr 11, pp 29 - 32 (USSR)

ABSTRACT: Mineral-ceramic instruments are widely used in machine-building. The Moskovskiy kombinat tv"erdyykh splavov (Moscow Combine of Hard Alloys) produces blades of type TsM-332 for these instruments. A mechanical fastening of the blades is more expedient than welding. Several types of cutters have been tested (Figure 1 - 3). The cutter type III (Figure 3), in which the blade is fastened to the butt, has the best practical properties. At the Dnepropetrovskiy zavod metallurgicheskogo oborudovaniya DZMO (Dnepropetrovsk Plant of Metallurgical Equipment DZMO), cutters with mineral-ceramic blades are used on a broad scale. Blades of type TsM-332 are better than blades T15K6 made of alloy. After 20 sec of work, the blades T15K6 showed a wear of 0.2 mm, whereas blades TsM-332 reached this value only after 2.9 min. The blades TsM-332 have a bending resistance of only 30-40 kg/mm², so that the

Card 1/2

The Machining of Steel by Mineral-Ceramic Cutters

SOV/117-58-11-23/36

feeding speed is only 0.6-0.8 mm per revolution. Cutting depth has been increased to 1-5 mm and experiments are being made to attain a depth of 10 mm. During work at low values of cutting depth, the wear on the cutting part of the instrument causes a low machining precision. The life of the cutting blades is increased by coating them with copper. An apparatus for graphitization is shown in Figure 5. There are 4 diagrams and 1 graph.

1. Steel---Machining
2. Cutting tools---Materials
3. Cutting tools---Design
4. Cutting tools---Performance
5. Ceramic materials---Applications

Card 2/2

KOPYCHEV, I.

We are using bank loans. Mias.ind.SSS^H 28 no.1:44 '57.

(MLRA 10:3)

1. Direktor Bel'tskogo myasokombinata.
(Meat industry--Finance)

71

Process for separating the physical constituents of coal.
P. A. Kopychey, *Coke and Chem.* (U. S. S. R.) 7, Nov.
4-5, 40-9 (1937); *Chimie & Industrie* 40, 691.—The
method best suited for the sepn. of the petrographic con-
stituents of coal would be a combination of elastic crushing
with a classification of the product according to the ds. of
the various fractions. The densimetric sepn. can be car-
ried out by flotation. 2 fractions being collected correspond-
ing, resp., to vitrain (d. about 1.3), durain (d. 1.3-1.5)
and fusain (d. 1.5 and over). The last is found chiefly
in the finer portions, which can be sepd. by air flotation.
The product thus obtained can be used as raw material in
the manu. of black pigments. A. Papineau-Couture

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESS AND PROPERTIES INDEX																			
<p>CA</p> <p>27</p> <p>A combination method for the working up of coal sludge. <i>P. A. Kopychay, Gorn-Oboegatitel. Zhur. 2, No. 4, 36 (1937); Chem. Zentr. 1939, I, 1108; cf. C. A. 33, 1909.</i> Coarse grains of rock on the swinging screens are often not broken up sufficiently rapidly by the action of water but remain in the concentrate and contaminate it. Their removal is possible only after the grains have been thoroughly broken up to sizes less than 20-30 μ. This can be accomplished by the addn. of dispersing agents such as water glass. Removal of the clay particles adhering firmly to the particles of coal is likewise difficult. This nuisance can be eliminated by the adsorption of hydrophobic substances, such as petroleum, on the surface of the coal particles. In this way the adhesive force between the clay and coal is weakened and the clay particles can be readily washed away. The combined addn. of substances belonging to both these classes (dispersive agents and hydrophobic substances) in one and the same operation definitely improves the results of the washing. M. G. M.</p>																			
<p>ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
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KOPYCHEV, P. A.

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SPETSIAL'NYE METODY OBOGASHCHENIYA POLEZNYKH ISKOPAYENYKH (SPECIAL
METHODS OF DRESSING MINERAL PRODUCTS, BY) V. G. DERKACH I P. A. KOPYCHEV.
MOSKVA, METALLURGIIZDAT, 1956. 344 p. ILLUS., DIAGRS., TABLES. "LITERATURA":
p. 330-331.

DERKACH, Viktor Grigor'yevich; KOPYCHEV, Petr Alekseyevich; OLOFINSKIY, N.F., kandidat tekhnicheskikh nauk, retsenzent; KIVIN, P.M., redaktor; YEMZOKOVA, M.L., redaktor izdatel'stva; EVENSON, I.M., tekhnicheskii redaktor

[Special methods of ore dressing] Spetsial'nye metody orogashchenia poleznykh iskopaemykh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1956. 344 p. (MIRA 10:1)
(Ore dressing)

KOPYCHEV, P.A.

KOPYCHEV, P.A.

68-7-2/16

AUTHORS: Bublikov, A.V., Klassen, V.I., Zhendrinskiy, A.P. and Kopychev, P.A.

TITLE: Pneumatic Flotation Machines. (Pnevmaticheskiye flotatsionnyye mashiny).

PERIODICAL: Koks i Khimiya, 1957, Nr 7, pp. 6-9 (USSR).

ABSTRACT: The development and testing of a pneumatic flotation machine for the flotation of coal slurries is described. In 1955 the collective of the Dneprodzerzhinsk Works in cooperation with the Dnepropetrovsk Mining Institute and the Mining Institute of the Academy of Science of the USSR designed and built a pneumatic flotation machine (a description and a diagram are given, Fig.1) which was tested on a flotation plant (Fig.2). The experimental results for the pneumatic machine are given in Table 1 and parallel results for a normal impeller machine in Table 2; a comparison of power consumption by the above two machines is given in Table 3. During testing, a number of design deficiencies were observed and a new machine was designed (shown in Fig.3). On the suggestion of V.I.Klassen, spraying of foam was included (spraying arrangement is shown in Fig.4). In 1956 three of these machines were built and included into the flotation train (Fig.5). Tests were carried out

Card
1/3

Pneumatic Flotation Machines.

under the following conditions: pulp density - 200 g/l, time of flotation - 6 min; absorption oil consumption - 3.5 kg/ton. The flotation results obtained on pneumatic and mechanical machines are given in Tables 4 and 5 respectively. Comparison of air and power consumption is given in Table 6. Flotation of fine slurries from the "circulating" water was also tested (Table 7). It is concluded that the pneumatic machines are suitable for the flotation of coal of less than 1 mm size from slurries. With spraying of foam from the initial slurry of 13-15% ash content, concentrates of 7.5-8% ash and tailings of 58-60% ash can be obtained. The throughput of pneumatic machines in its present stage of development is approximately the same as that of mechanical machines. The use of spraying of foam decreases the ash content of concentrates by 0.5-0.8%. In view of their simplicity, low costs and low power consumption, pneumatic machines are recommended for the flotation of coals of 1-0 mm size and particularly for 0.5-0 mm size.

Card
2/3

137-58-6-11346

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 13 (USSR)

AUTHOR: Kopychev, P. A.

TITLE: Beneficiation of Anthracite for Iron Ore Sintering Purposes
(Obogashcheniye antratsita dlya aglomeratsii zheleznykh rud)

PERIODICAL: Izv. Dnepropetr. gorn. in-ta, 1957, Vol 26, pp 61-63

ABSTRACT: For purposes of sintering Fe ores, coke fines are introduced into the charge. However, the high ash content of this product and the fact that it is in short supply make it desirable that fine anthracite be substituted for it. The beneficiation of anthracite fines makes it possible to produce 75% concentrate of appx. 6% ash content and 25% tailings having 40% ash content. If the extraction ratio of the concentrate is reduced to 50%, its ash content will be 4.5-5%, and the ash content of the tailings will be 25-30%. A typical anthracite beneficiation procedure is presented, the carrying out of which requires a dust-precipitation and pneumatic-separation installation.

A.Sh.

Card 1/1

1. Iron ores--Sintering 2. Coal--Preparation 3. Coal--Applications

SOV/68-59-7-9/33

AUTHORS: Kanevskiy, V.P., Kopychev, ~~P.A.~~, Bass, M.Ya., Gol'dberg, A.S. and Lokshin, M.A.

TITLE: An Increase in the Efficiency of Operation of Pistonless Jigging Machines

PERIODICAL: Koks i khimiya, 1959, Nr 7, pp 21 - 27 (USSR)

ABSTRACT: The re-design of the pistonless jigging machine operating at the Makeyevka Works is described. Main points are: 1) differential driving gear which permitted regulating the velocity of the medium within wide limits; 2) the automatic regulator of the removal of rocks and of the intermediate product was replaced by a pneumohydraulic one which secured the constancy of a high quality of the products; 3) the discharge of heavy fractions is done with the aid of a pocket in front of the outlet which decreased the contamination of heavy products with lighter fractions; 4) the number of pulsations was decreased from

Card 1/2

SOV/68-59-7-9/33

An Increase in the Efficiency of Operation of Pistonless Jigging Machines

96 to 32 per minute; 5) a scheme for automating the control of the discharge of air in relation to the load was developed. The above modification decreased coal losses with rock by a factor of 5 - 7 which varies at present between 0.2 - 0.5%. The yield of the fraction of specific gravity 1.5 - 1.8 in rocks decreased and varies within 0.5 - 3.0%. Coal loss in the intermediate product decreased by a factor of 3 and varies within 3.7%.

There are 5 figures and 4 tables.

ASSOCIATIONS: Dnepropetrovskiy gornyy institut (Dnepropetrovsk Mining Institute), Makeyevskiy koksokhimicheskiy zavod (Makeyevka Coking Works)

Card 2/2

KOPYCINSKI, D.
Polish Technical Abstracts
No. 4, 1953
Building Industry and
Architecture

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653.971.11 : 691.327.1

Kopycinski B. Rationalisation of Designing Procedure for Concrete Mixes on Building Sites.

„W sprawie racjonalizacji postępowania związanego z projektowaniem betonu na budowie”. Inżynieria i Budownictwo. No. 10, 1952, pp. 337-340, 2 figs.

The method outlined here, designed to curtail the time required for working out details of projects for concrete mixes at building sites and, at the same time, to increase their reliability, is based on a conception which deals with the concrete as a mixture of gravel and mortar, the composition of which can readily be determined according to requisite strength of the concrete. This conception has a number of inherent advantages, one of them being that it is possible to design, on the basis of graphs, prepared for this purpose, concrete mixtures of a composition to give the desired strength and to be of the proper consistency, due allowance being made for the absorptiveness of the gravel.

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624.072.2 604.932.3 624.043.003

Kopyński B. Dimensioning of the Cross-Section of Chord Concrete

~~Beams~~ ~~from~~ ~~the~~ Point of View of Economy.

„Ukształtowanie przekroju poprzecznego belki strąbocetonowej : ekonomicznego punktu widzenia” Inżynieria i Budownictwo No 11, 1953, pp. 348—351, 2 figs., 1 tab.

The dimensioning of the cross-section of beams has, by reason of the position of their centre of gravity, a material influence on the quantity of steel required. The author has therefore drawn up for the quantity of steel required a formula which depends on the safe moment of force, compression strength, technical properties of concrete and cross-section.

KOPYCINSKI, B.

KOPYCINSKI, B. Formation of cross sections of stressed concrete supports
from the economical point of view. Tr. from the Polish.
p. 179.

Vol. 13, no. 1/4, 1954, Budapest, Hungary KOZLEMEENYEI

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 3,
March, 1956

KOPYCISKI, W.

Loading capacity of reinforced concrete beams as reflected in the theory and the experiment. Tr. from the Polish. p. 75.
(KOZLENOWSKI, Vol. 21, no. 1/4, 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) IC. Vol. 6, no. 21, Dec. 1957.
Uncl.

Card 1/1

KOPYCINSKI, Bronislaw, prof. dr inz.

"Supporting structures" by L. Palotas. Reviewed by Bronislaw Kopycinski. Inz i bud 19 no.1:Suppl.: Maly por konstr 3 no.1:4 of cover Ja '62.

~~KOPYCINSKI~~, Bronislaw, prof. dr inz.

"Calculation and designing machine and turbine foundations"
by A. Major. Reviewed by Bronislaw Kopycinski. Inz i bud 19
no.3:3 of cover Mr '62.

KOPYCINSKI, I.

Planning the composition of concrete based on the knowledge of mortar.
Tr. from the polish. p. 453.

Vol. 4, no. 9, Sept. 1954.
MELYEPITESTUDOMANYI SZEMLE
Budapest

SOURCE: Monthly list of East European Accession, (EEAL), LC, Vol. 5,
No. 3, March, 1956

KOPYDŁOWSKI, Jerzy, mgr inż.

Calculation of the amount of air and flue gases and their composition. Gosp paliw 12 no.8/9:266-271 Ag-S '64.

1. Central Boiler Design Office, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr., inz.

Boiler house for starting and peak shaving purposes in the refining and petrochemical plants at Plock. Przegl mech 20 no.24:747-751 '61.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

(Poland--Boilers)

KOPYDŁOWSKI, Jerzy, mgr., inż.

Shot cleaning of convection heating surfaces in boilers. Energetyka
przem 10 no.2:47-51 '62.

1. Centralne Biuro Konstrukcji Kotłowych, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inż.

Fires of regenerative air preheaters. Energetyka Pol 19 no.3:
71-76 Mr '65.

KOPYDLOWSKI, Jerzy, mgr inż.

Grate boiler furnaces. Przegl mech 24 no.0:266-269 10 My '65.

1. Central Boiler Design Office, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr., inz.

Problems of decreasing the steam boiler leaving loss. Energetyka
Pol 16 no.3:73-77 '62.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory

KOPYDLOWSKI, Jerzy, mgr., inż.

Difficulties of burning heavy oil fuels in boilers and attempts
for eliminating them. Energetyka Pol 15 no.11:325-330 '61.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr. inż.

New Polish designs of boilers heated by fuel oil.
Przegl mech 21 no.11:342-345. 10 Je '62.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr.inz.

Continuously operating shot cleaning installations for the surface
of heating boilers. Energetyka przem 10 no.6:198-201 Je '62.

1. Centralne Biuro Konstrukcji Kotlow, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr.inz.

Steam boilers of large boiler-turbogenerator unit systems.
Energetyka Pol 16 no.8:225-229 Ag '62.

1. Centralne Biuro Konstrukcji Kotlow, Tarnowskie Gory.

KOPYDLOWSKI, Jersy, mgr inż.

Boilers of large electric power producing plants. Przegl mech 21 no.22:
699-704 25 N '62.

1. Centralne Biuro Konstrukcji Kotlow, Tarnowskie Gory.

KOPYDLOMSKI, Jerzy, mgr inż.

Flue gas recirculation and heat exchange in steam
boilers. Energetyka Pol 17 no.3:65-70 Mr '63.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie
Gory.

KOPYDLOWSKI, Jerzy, mgr inż.

New design of a medium-sized boiler heated with coal dust.
Przegl mech 22 no.5:146-149 10 Mr '63.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inz.

Remarks on the design of cleaning the heating surfaces of boilers
with abrasive shot. Energetyka przem 10 no.7:235-240 J1 '62.

1. Centralne Biuro Konstrukcji Kotlow, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inż.

Development trends in designing large boilers. Gosp paliw 11
no.7:241-244 J1 '63.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inż.

New designs of power generating boilers heated with fuel oil.
Gosp paliw 11 no.8:298-302 '63.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

(
KOPYDŁOWSKI, Jerzy, mgr inż.

Regenerative air heating in steam boilers. Przegl mech 22 no.21:
661-664 N '63.

1. Centralne Biuro Konstrukcji Kotłowych, Tarnowskie Gory.

WATALA, Aniela, mgr inz.; KOPYDLOWSKI, Jerzy, mgr inz.

Analysis of thermal calculation methods of steam boiler
furnace chambers. Gosp paliw 11 no.5:168-172 My '63.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inz.

Use of the digital computer in designing steam boilers. Gosp
paliv 11 no.3:89-93 Mr '63.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

KOPYLOWSKI, Jerzy, mgr inż.

Regenerative air heating in steam boilers. Tekhnika Bulg 12
no.7:661-664 '63.

1. Centralne Biuro Konstrukcji Kotlowych, Tarnowskie Gory.

MITEK, Aniela, mgr inż.; KOPYDŁOWSKI, Jerzy, mgr inż.

Boilers with forced circulation. Przegl mech 23 no. 4:116-118
25 F '64.

1. Centralne Biuro Konstrukcji Kotłow, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inż.

The heat balance of a boiler. Gosp paliw 12 no.6:191-196 Je '64.

1. Central Boiler Design Office, Tarnowskie Gory.

KOPYLOWSKI, Jerzy, mgr inż.

The magnetohydrodynamic generator as a future source of power. Energetyka Pol 18 no.10:306-310 0 '64.

1. Central Boiler Design Office, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inż.; MITEK, Aniela, mgr inż.

Development trends in the construction of large boilers. Przegl
mech 23 no.15:437-441 10 Ag '64

1. Central Boiler Design Office, Tarnowskie Gory.

KOPYDLOWSKI, Jerzy, mgr inż.

Computation of the flue gas temperature at the outlet
of the combustion chamber. Pt.3. Gosp paliw 13 no.1:
10-14 Ja '65.

KOP'YEV, A., inzh.-normirovshchik

Mechanized removal of cinder in grain drying and cleaning towers.
Muk.-elev. prom. 24 no.10:24 O '58. (MIRA 11:12)

1. Kuybyshevskaya normativno-issledovatel'skaya stantsiya.
(Grain--Drying) (Ash disposal)

KOP'YEV, Sergey Ivanovich; FILIPPOV, Yevgeniy Mikhaylovich;
MYAGKOV, M.M., red.; ANDREYEVA, L.S., tekhn. red.

[Volunteer institute of inventors and builders] Obshchestven-
nyi institut novatorov-stroitelei. Moskva, Izd-vo VTsSPS,
Profizdat, 1961. 52 p. (MIRA 15:1)

(Building)

CA

25

Wash-resistant textile finish. A. A. Kopyev, N. A. Boris, and Z. A. Tolstousova. U.S.S.R. 69,941, Dec. 31, 1947. The textile is satd. with a soln. of cellulose in an alkali metal zincate. Following this, the textile is treated with an acid and washed. M. Horsch

KOP'EV, A. A.

23348 Tsellyuloznyy Nesmyvayemyy Appret 1 1 Ego Primeneniye. Tekstil. Prom-St',
1949, No. 6, c. 23-25

SO: LETOPIS NO. 31, 1949

KOP'YEV, A. A., DUL'MAN, T. M.

Bacteria, denitrifying

New method of biological retting of flax by application of ferments of denitrifying bacteria. Tekst. prom., 12, No. 6, 1952

Monthly List of Russian Accessions. Library of Congress October 1952 UNCLASSIFIED

DUL'MAN, T.M.; KOP'YEV, A.A.

Relations between pectinolytic and denitrifying bacteria. *Mikrobiologiya*
21, 677-83 '52. (MLBA 5:12)
(CA 47 no.14:7035 '53)

1. Central Cotton Research Inst., Moscow.

KOP'YEV, A.A.

Dissertation: "Investigations in the Field of Increasing the Wear Resistance of Cotton Fabrics." Cand Tech Sci, Moscow Textile Inst, Moscow, 1953. (Referativnyy Zhurnal, Khimiya, Moscow, No. 16, Aug 54)

SO: SUM 393, 28 Feb 1955

1. DUL'MAN, T. M. - KOP'YEV, A. A.
2. USSR (600)
4. Bacteria
7. Relation of pectin decomposing bacteria to denitrifier bacteria.
Mikrobiologiya 21 no. 6, 1952
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

KOP'YEV, A.A., kandidat tekhnicheskikh nauk, redaktor; NATANSON, I.A.,
revisent.

[Handbook on dyeing and finishing silk fabrics] Spravochnik po
kraasheniiu i otdelke shelkovykh tkani. Pod red. A.A. Kop'eva.
Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva promyshlennyykh
tovarov shirokogo potrebleniia SSSR, 1953. 463 p. (MLRA 7:7)

1. Moscow, Tsentral'nyy nauchno-issledovatel'skiy institut
shelkovoy promyshlennosti.
(Dyes and dyeing--Silk)

KDP 769 11-11

Abrasion resistance and good performance of cotton fabric.
A. A. Kopyev. *Tekstil. Prom.* 14. No. 8, 35-8(1954). —
Abrasion resistance and over-all performance of cotton fabric
are improved by enzymic desizing (with 0.5-3.0 g./l. of
amylase D, superbiolase, etc.) followed by monochlorourea
bleach at 50-60° with 2-4 g./l. active Cl and a pH = 4.
Elizabeth Barabash

KOP'YEV, A.A., doktor tekhnicheskikh nauk.

Improving the durability and good quality of cotton fabrics.
Tekst.prom. 14 no.10:31-33 0 '54. (MLRA 7:10)
(Cotton fabrics)

KOP'YEV, A.A. [deceased]; ZAYONCHKOVSKIY, A.D.; YABKO, Ya.M.; PARINI, V.P.;
PARAMONOV, V.G.; GLUZMAN, G.M.; GRIGORIADI, M.G.

Increasing water repellency in leather by means of a veldn-type
compound. Leg.prom. 17 no.7:23-25 J1 '57. (MLRA 10:9)
(Leather industry)

RAKHSHTADT, A.G., kandidat tekhnicheskikh nauk, dotsent; KOP'YEV, I.M.,
inzhener.

Study of internal friction of beryllium bronze. [Trudy] MVTU
no.70:51-63 '56. (MLRA 9:9)

(Copper-tin-beryllium alloys)
(Bronze--Metallography)

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24187

S/129/61/000/007/001/016
E021/E135

AUTHORS: Oding, I.A., Corresponding Member, AS USSR, and
Kop'yev, I.M., Engineer

TITLE: Mechanism of growth of whisker crystals

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
1961, No.7, pp. 2-7

TEXT: The hypotheses put forward in the last few years to explain the growth of "whiskers" are reviewed. It was first proposed by G.W. Sears (Ref.1: Acta Metalurgica, V.3 No.4, 1955) that in the condensation of mercury to form a whisker, the whisker inherited the helical dislocations of the surface on which it was growing. A calculation using thermodynamics showed that this gave a rate of growth several times too low. When it was assumed that the atoms striking the side of the whisker could diffuse to the top and take part in growth, calculation showed that this gave results which were observed in practice. In work with potassium chloride whiskers in aqueous solutions, a second hypothesis was put forward by I.B. Newkirk and G.W. Sears (Ref.3: Acta Metalurgica, V.3, No.2, 1955) which proposed that when small particles were in collision

Card 1/4

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E021/E135

Mechanism of growth of whisker

with the surface of a larger crystal, the formation of helical dislocations was possible, leading to the growth of the crystal in thickness. S.S. Brenner and G.W. Sears put forward a third mechanism for the growth of whiskers from the gaseous phase (Ref.5: Acta Metalurgica, V.4, No.3, 1956) which is also based on helical dislocations. It was proposed that atoms would precipitate on the steps of a helical dislocation when a surface containing such imperfections was exposed to a supersaturated gaseous medium. This mechanism is only observed with high degrees of supersaturation as in the reduction of halide salts. For several metals, a basal mechanism of growth has been observed in such reductions. The rate of growth of silver whiskers from silver chloride can be calculated approximately, and results have given good agreement with experimental data. W.I. Allen and W.W. Webb (Ref.10: Acta Metalurgica, V.7, No.9, 1959) proposed that copper whiskers formed from copper chloride grow both at the base and at the top. The present authors have carried out some tests on the growth of copper whiskers from CuCl. The apparatus used is shown in Fig.3 (where: 1 - heater, 2 - thermocouple, 3 - quartz tube). The salt was vapourised at temperature T_1 and reduced at temperature T_2 .
Card 2/4

24187'

Mechanism of growth of whisker

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E021/E135

At low degrees of supersaturation no growth was observed, but on increasing T_1 and T_2 , thin crystals were found, 2-10 μ in diameter and 0.1-0.4 mm long. All mechanisms of growth are based on the development of helical dislocations. Many attempts to show dislocations in whiskers have been made. Emission microscope studies by E. Müller (Ref.16: Journ. Appl. Physics, V.30, No.11, 1959) on iron whiskers have confirmed the presence of pairs of helical dislocations with opposite signs.

There are 3 figures and 16 references: 1 German and 15 English. The four most recent English language references read as follows:
Ref.8: S.S. Brenner, Acta Metallurgica, V.7, No.10, 1959.

Ref.10: as above.

Ref.15: J.D. Eshelby, Growth and Perfection of Crystals. (John Wiley Sons, Ins. New York, 1959).

Ref.16: as above.

ASSOCIATION: Institut metallurgii AN SSSR
(Institute of Metallurgy, AS USSR)

Card 3/4

ODING, I.A.; KOP'YEV, I.M.

Properties of strength and plasticity of filiiform crystals.

Trudy Inst. met. no.8:254-258 '61.

(MIRA 14:10)

(Metal crystals)

18.9500

26796
S/129/61/000/009/004/006
E193/E380

AUTHORS: Oding, I.A., Corresponding Member of the AS USSR
and Kop'yev, I.M., Engineer

TITLE: Mechanical Properties of Metal Whiskers

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
1961, No. 9, pp. 44 - 49

TEXT: Although the mechanical properties of metal whiskers have been extensively studied, the causes of their high strength are not yet properly understood, mainly because of difficulties in applying statistical methods of analysis to the relatively small number of experimental results obtained on whiskers grown and tested under a large variety of conditions. Hence, the present investigation, whose object was to study the mechanical properties of iron and copper whiskers, produced by hydrogen reduction of CuCl and FeCl_2 . A large variety of forms was produced, including bent, twisted, conical and branched-out crystals. Only straight whiskers (3 - 10 mm long) with uniform surface reflectivity were used in bending, tensile and fatigue tests; the copper whiskers were also examined by X-ray

Card 1/4

26796

S/129/61/000/009/004/006

E193/E380

Mechanical Properties of

diffraction. In Fig. 4, the tensile stress (σ , kg/mm^2) is plotted against elongation (ϵ) of a) iron whiskers, 5.3μ in diameter and, b) copper whiskers, 2.5μ in diameter. The effect of size is illustrated in Fig. 5, where UTS (σ , kg/mm^2) of copper whiskers is plotted against diameter (d , mm, diagram a) and length (L , mm, diagram b), the diameter in the latter case being $6 - 7 \mu$. Similarly, the UTS (kg/mm^2) of large iron whiskers is plotted against their diameter (μ) in Fig. 7. Finally, the effect of crystal orientation on the strength of copper whiskers is illustrated in Fig. 7, where UTS

(σ , kg/mm^2) is plotted against whisker diameter (μ), the continuous curve relating to whiskers whose axes coincide with the $[111]$ crystal axis and the broken curve showing the average UTS of whiskers with axes in the $[100]$ and $[110]$ directions. In fatigue tests some of the specimens subjected to stresses of $60 - 120 \text{ kg/mm}^2$ remained unbroken after ten million cycles. The results confirmed that the tensile strength of whiskers approached the theoretical strength of metals; this conclusion

Card 2/4

Mechanical Properties of

26796
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E193/E380

was also supported by the results of bending and fatigue tests. The strength decreased with increasing length and diameter. This effect is attributed to various structural defects, defects formed during the handling of specimens and surface defects associated with the action of the surrounding atmosphere.

Whiskers whose diameter exceeded 10 μ had a mosaic structure and their strength was very low. The axes of copper whiskers coincided with the [100], [110] and [111] crystal axis; the cross-section of whiskers with a [111] and [100] orientation was hexagonal and square, respectively.

There are 7 figures and 21 references: 1 Soviet and 20 non-Soviet. The four latest English-language references quoted are: Ref. 16 - Cabrera, N. - Cambridge Conference on Whiskers and Thin Films Abstract in Nature, Vol. 102, 1958; Ref. 18 - W.W. Webb and M. Stern - Journ. Appl. Phys., Vol. 30, 1958; Ref. 19 - S.S. Brenner - Journ. Appl. Phys., Vol. 30, 1959; Ref. 21 - P.B. Price - Philos. Mag., V. 5, 1960.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy of the AS USSR)

Card 3/4

S/032/61/027/001/019/037
B017/B054

AUTHORS: Ivanova, G. M., Kop'yev, I. M., and Fridman, Z. G.

TITLE: Comparative Studies of the Relaxation of Annular and Cylindrical Specimens

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 74-76

TEXT: The methods suggested by I. A. Oding (Ref. 1) and V. V. Burduksiy (Ref. 2) to study the relaxation of cylindrical and annular metal specimens yielded satisfactory results. Cylindrical and annular specimens of austenite steel ЭИ 257 (EI 257) and commercially pure iron were annealed at 1500 and 980°C, held at these temperatures for 2 hours, and subsequently cooled in a furnace. After the treatment, the specimens showed the same microstructure. The relaxation of the annular specimens was determined by the standard method (Ref. 4). Their residual deformation was tested by an M3A-2 (IZA-2) comparator with an accuracy of ± 0.002 mm. The study of the relaxation of both annular and cylindrical specimens took 200-250 hours. At the initial stage of relaxation, stress decreased more rapidly in annular than in cylindrical specimens. This effect is explained by a shift

Card 1/2

Comparative Studies of the Relaxation of
Annular and Cylindrical Specimens

S/032/61/027/001/019/037
B017/B054

in the distribution of stress over the cross section of the annular specimens. The experiments were made by means of an East-German machine of the VEB Werkstoffprüfmaschinen (State-owned Enterprise of Material Test Machines) reconstructed by the Institut mekhaniki AN SSSR (Institute of Mechanics AS USSR). There are 2 figures, 1 table, and 5 Soviet references. ✓

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy imeni A. A. Baykov), Institut mekhaniki Akademii nauk SSSR (Institute of Mechanics, Academy of Sciences USSR)

Card 2/2

20200

10.9230 2808, 1418, 1413

S/032/61/027/003/020/025
B101/B203

AUTHORS: Geminov, V. N. and Kop'yev, I. M.

TITLE: Causes of the high strength of thin metallic filaments

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 3, 1961, 334-335

TEXT: On the basis of available experimental and theoretical data, the authors make assumptions on the nature of the strength of thin metallic filaments. They study the strength of metal microcrystals with diameters from 20-30% down to thousandth parts of a micron. Experiments showed that the strength of comparatively thick filaments (15 - 20 μ and more) did not differ from the strength of large crystals, i.e., from the values known in industry. In thin metallic filaments (10 μ and less), however, the strength increases, and may attain the theoretical strength of metal. Three hypotheses are discussed: 1) Effect of the surface tension. This hypothesis is refused since calculations have shown that the surface tension increases the strength of a crystal noticeably only in the case of thicknesses of some tenths of a micron. 2) High density of dislocations. This hypothesis, too, cannot be accepted because a) a very even distribution of dislocations is not observed in practice. b) a very even distribution of dislocations is not observed in practice. c) a very even distribution of dislocations is not observed in practice. d) a very even distribution of dislocations is not observed in practice. e) a very even distribution of dislocations is not observed in practice. f) a very even distribution of dislocations is not observed in practice. g) a very even distribution of dislocations is not observed in practice. h) a very even distribution of dislocations is not observed in practice. i) a very even distribution of dislocations is not observed in practice. j) a very even distribution of dislocations is not observed in practice. k) a very even distribution of dislocations is not observed in practice. l) a very even distribution of dislocations is not observed in practice. m) a very even distribution of dislocations is not observed in practice. n) a very even distribution of dislocations is not observed in practice. o) a very even distribution of dislocations is not observed in practice. p) a very even distribution of dislocations is not observed in practice. q) a very even distribution of dislocations is not observed in practice. r) a very even distribution of dislocations is not observed in practice. s) a very even distribution of dislocations is not observed in practice. t) a very even distribution of dislocations is not observed in practice. u) a very even distribution of dislocations is not observed in practice. v) a very even distribution of dislocations is not observed in practice. w) a very even distribution of dislocations is not observed in practice. x) a very even distribution of dislocations is not observed in practice. y) a very even distribution of dislocations is not observed in practice. z) a very even distribution of dislocations is not observed in practice.

Card 1/3

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Causes of the high strength of ...

S/032/61/027/003/020/025
B101/B203

buton of dislocations would have to exist since the slightest inhomogeneity causes a weakening of the metal, and b) the X-ray investigations showed that the lattice of thin metallic filaments was more perfect than that of massive crystals. 3) Great perfection of the lattice of the metallic filament. This assumption corresponds best to experimental data. Experiments by the authors and by foreign researchers showed that only metallic filaments up to diameters of 10 - 15 μ had a perfectly homogeneous cross section. Thicker filaments showed a laminated structure. The number of dislocations increases with increasing filament diameter. In this case, other defects such as pits and impurities occur, which mainly affect the surface. This led the authors to the assumption that the strength of metallic filaments depended on the size of their surface only. With the same surface, the strength did not depend on the diameter. Experiments (Fig.) confirmed this assumption. The dependence of strength on the surface applies more universally than the known dependence on the diameter and the decrease in strength with increasing length as stated earlier by the authors. This is explained by statistical factors which are also responsible for the spread of measured values. Crystals with

Card 2/3

20200

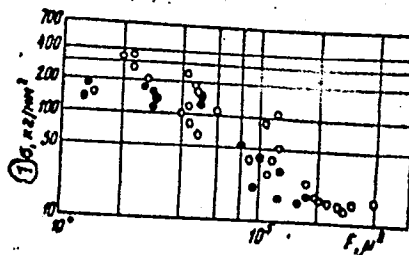
Causes of the high strength of ...

S/032/61/027/003/020/025
B101/B203

diameters of 20 - 30 μ and more should be excluded from the study of superstrong metal because of their laminated structure. It is further stated that the size factor of thin metallic filaments is of quite different nature from that of larger objects so that data cannot be compared with each other. There is 1 figure.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR
(Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences USSR).

Legend to the figure:
o: $l = 2 \text{ mm}$; \bullet : $d = 6.5 \mu$;
1) σ , kg/mm^2 .



Card 3/3

GEMINOV, V.N.; KOP'YEV, I.M.

Strength of fine metal filaments. Trudy Inst.met. no.10:202-208
'62. (MIRA 15:8)
(Metal crystals--Defects)

S/506/62/000/011/005/019
E071/E351

AUTHORS: Oding, I.A. and Kop'ev, I.M.

TITLE: Investigation of the preparation of thread-like crystals by reduction of halide salts

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Trudy. no. 11. Moscow, 1962. Metallurgiya, metallovedeniye, fiziko-khimicheskiye metody issledovaniya. 99 - 108

TEXT: The factors affecting the growth of thread-like crystals (whiskers) during the reduction of cuprous and ferrous chlorides with hydrogen were investigated. A stream of purified hydrogen was passed over a sample (4.5 g) of the salt in an alundum boat (100 mm long) placed in a silica tube, heated by a thermos statically controlled ($\pm 5^{\circ}\text{C}$) furnace. The growth of thread-like crystals depends on many factors (humidity, purity and amount of salt, stability of reducing conditions, etc.) but the determining factors are the reaction temperature and the hydrogen velocity. The optimum temperature range for copper is $520 - 530^{\circ}\text{C}$ and for iron is $650 - 670^{\circ}\text{C}$. Changes in hydrogen pressure from 0 - 300 mm w.g. has no influence on the crystal growth but an

Card 1/2

Investigation of

S/509/52/000/011/005/019
E071/E351

increase to 0.5 atm. leads to the formation of thin, short crystals (optimum hydrogen velocity not given). The shape of the whiskers depends on temperature and gas-flow conditions and on the conditions for growth of the individual crystals. The shape of the transverse cross-section of whiskers depends on the reduction temperature, the crystallographic orientation of the axis of whiskers and the form of the halide salt. From a thermodynamic consideration of the effect of the activity of the metal (α), the formation of whiskers will depend, to a first approximation, on the reduction temperature and the velocity of flow and the pressure of hydrogen:

$$\alpha = C \cdot \frac{T (P_{H_2})^{n/2}}{V (P_{H_X})^n}$$

where C - constant, T - reduction temperature, V - velocity of hydrogen flow, P_{H_2} - partial pressure of hydrogen, P_{H_X} - partial pressure of hydrogen halogenide. There are 10 figures.
Card 2/2

ODING, I. A.; GORDIYENKO, L. K.; KOP'YEV, I. M.

Obtaining very strong "whisker" crystals and their properties.
Trudy Inst. met. no.13:87-107 '63. (MIRA 16:4)

(Metal crystals—Growth)

ACC NR: AT6034439

(A)

SOURCE CODE: UR/0000/66/000/000/0087/0092

AUTHOR: Ivanova, V. S.; Kop'yev, I. M.; Ustinov, L. M.

ORG: none

TITLE: Production and properties of heat resistant fibrous materials

SOURCE: AN SSSR. Institut metallurgii. Svoystva i primeneniya zharoprochnykh splavov (Properties and application of heat resistant alloys). Moscow, Izd-vo Nauka, 1966, 87-92

TOPIC TAGS: heat resistance, metal whisker, tensile strength

ABSTRACT: The article reviews existing literature data on the production and properties of the whisker crystals of various metals and considers the main problems involved in future progress in this field. A table is given listing the strength of fibers of different materials which have been achieved in recent years. The data shows that the strength of fibers or whiskers is considerably greater than the strength of the massive materials. For example, for iron the strength of the whiskers is more than 50 times greater than that of the massive sample. The article lists the following requirements for successful production of this type of material: 1) there must be no phase transformations between the components in the operating temperature zone; 2) the fibers must be well wetted by the matrix to assure good transfer of strength from one

Card 1/2

ACC NR: AT6034439

fiber to another and a small porosity of the composition; 3) the fibers and the matrix should not react chemically with each other and should have a minimum mutual solubility; 4) the coefficients of thermal expansion of the fibers and the matrix should be close. Orig. art. has: 4 figures and 4 tables.

SUB CODE: 11/ SUBM DATE: 10Jun66/ ORIG REF: 001/ OTH REF: 006

Card 2/2

SOV/137-57-6-10388

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 140 (USSR)

AUTHORS: Andreyeva, V.A., Kop'yev, M.I.

TITLE: Decarburization Increases the Resistance of Steel to Hydrogen Corrosion (Uvelicheniye stoykosti stali protiv vodorodnoy korrozii metodom obezuglerozhivaniya)

PERIODICAL: Tr. Gos. n.-i. proyekt. in-ta azot. prom-sti, 1956, Nr 6, pp 308-313

ABSTRACT: It has been established that decarburized steel (DS) may be employed in the manufacture of components designed for operation at elevated temperatures and pressures in a medium containing H₂. The DS was found to be particularly useful in the manufacture of equipment employed for synthesis of NH₃. The process of decarburization of low-carbon steel is carried out in a hermetically sealed furnace from which all O₂ has been withdrawn. The temperature programming of the process consists of the following stages:
1) Heating to a temperature of 750°C over a period of 70 hours (up to 500° the heating is performed with dry H₂; at higher temperatures, a humidifier unit begins to operate at a water temperature

Card 1/2

SOV/137-57-6-10388

Decarburization Increases the Resistance of Steel to Hydrogen Corrosion

of 70-75°); 2) decarburization proper at a temperature of 730° for a period of 70 hours; 3) cooling to room temperature, which also requires 70 hours (with the humidifier in operation until a temperature of 500° has been reached). The C content in DS is reduced to values of a few thousandths of one percent, while the metal acquires a ferritic structure. The tensile strength of the steel is reduced by 15-20%, while its plasticity is somewhat improved. Decarburization may penetrate to a depth of 4-5 mm.

V.L.

Card 2/2

MAKARA, A.M.; YAGUPOL'SKAYA, L.N.; SLUTSKAYA, T.M.; KOP'YEV, M.I.;
USHAKOV, I.S.; SMIRNOVA, V.A.

Resistance to hydrogen corrosion in alloyed steel joints made by
electric slag welding. Avtom. svar. 16 no.6:24-29 Je. '63.

(MIRA 16:7)

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR (for Makara,
Yagupol'skaya, Slutskaya). 2. Gosudarstvennyy institut azotnoy
promyshlennosti (for Kop'yev, Ushakov, Smirnova).

(Steel alloys--Corrosion) (Electric welding)

KOP'EV, N. A.

Category: USSR/ Farm Animal Diseases Caused by Bacteria and Fungi

V-2

Abs Jour: Refer. Zhur-Biologiya, No 16, 1957, 72290

Author : Kop'ev N. A.

Title : The Problem of Elimination of Paratyphoid in Calves.

Inst : Not given

Orig Pub: Sb. Nauch. Stud. Rabot Saratovsk. Zootekhn-Vet. In-ta, 1956, 1, 89-91

Abstract: The treatment of calves suffering with paratyphoid with sulfanilamide (white streptocide and disulfane) and with streptomycin (intramuscularly) gave no positive results. The administration of a combination of sintomycin, etazole, and streptomycin with a specific serum appeared to be much more effective.

Card : 1/1

-11-

KOP'YEV, P.N.

Use of hot air in drying electric locomotive traction motors. **Elek.**
i tepl. tiaga 4 no.10:6-7 0 '60. (MIRA 13:10)

1. Nachal'nik proizvodstvenno-tekhnicheskogo otdela depo Kinel'
Kuybyshevskoy dorogi.
(Electric railway motors--Drying)

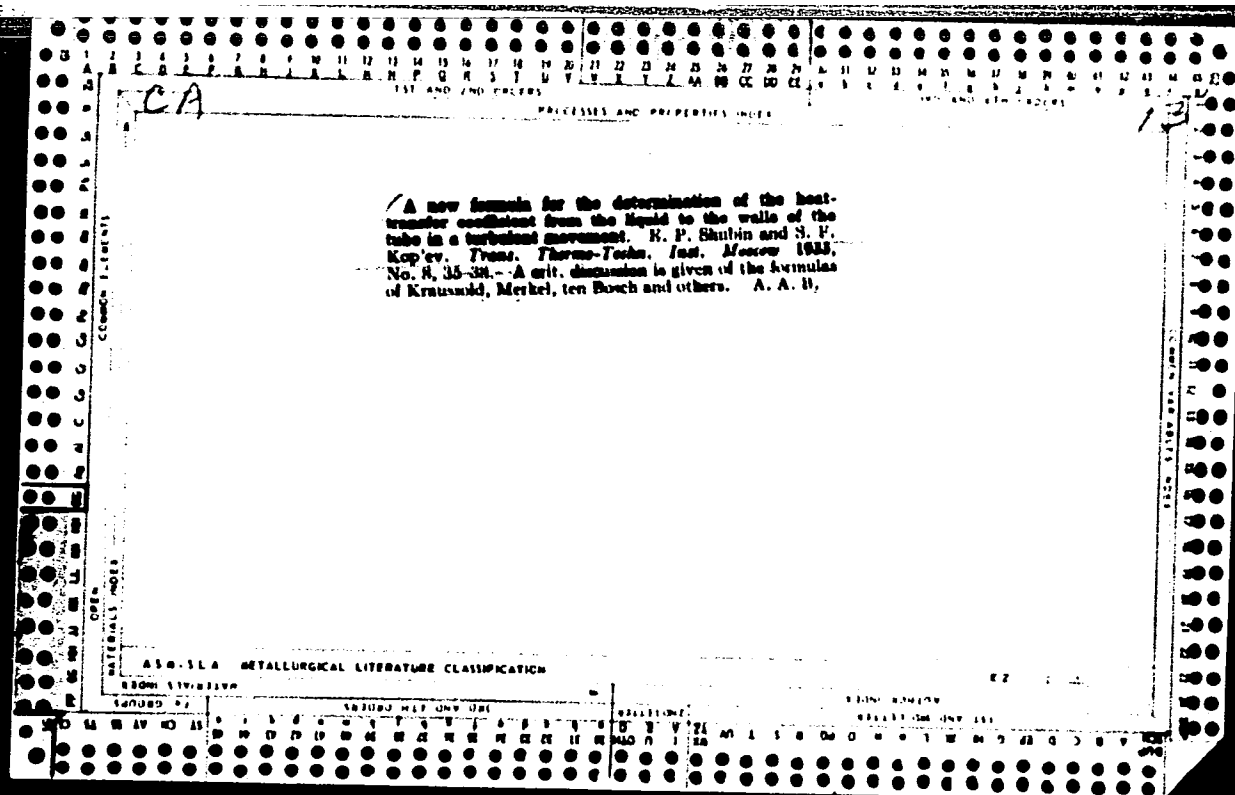
GONCHAROV, G.K. (g.Kinel'); KOP'YEV, P.H. (g.Kinel')

Electromagnetic method for the treatment of feed water for stationary boiler units. Zhel.dor.transp. 42 no.6:63-64 Je '60.

(MIRA 13:7)

1. Glavnyy inzhener lokomotivnogo depo Kinel' (for Goncharov).
2. Nachal'nik proizvodstvenno-tekhnicheskogo otdela depo (for Kop'yev).

(Feed-water purification)



1696. AN IMPROVED INJECTION MIXER (FOR USE IN DISTRICT HEATING SYSTEMS). Kopyev S F and Sokolov E I (Teplo Silovoye Khozyaystvo 1933, 14, (8/9), 34-9; Trnals. Build. Res. Stn. 10/1943).
(N. 5239)

1689. AUTOMATISATION OF DISTRICT HEATING SYSTEMS AND OF GAS-SUPPLY
CONNECTIONS. Kopyev S F (Tepl. i slla 1937, 13, (12), 14-20;
Transl. Build. Res. Sta. 8/1943). (N. 5233)

ASB.SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
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3894. INSULATION OF DISTRICT HEATING PIPE SYSTEMS. Kopyev, S. F. (Promyshlennaya Energetika, 1946, No. 7, 3-6; Engrs' Dig. Jan. 1948, Vol.9, No.1, 18-19). Suspension types of insulation with iron wire binding should never be permitted in inaccessible ducts. If wire must be used it should be at least one-twelfth of an inch in diameter and rustless. If the suspension type of insulation is adopted, it is best to use inorganic materials which can be wound on, i.e. slag wool in sheet form, or to enclose loose insulating materials in a strong sheath. Slag wool, sovelite and asothermits are suitable. For all general purposes pipes should be laid either without ducts or in ducts which are entirely filled with packing. In such cases the insulation can be loose, tightly rammed, cast or prefabricated-segmental; suitable materials include peat and aero-concrete. To minimize heat losses, pipes should be laid as near each

other as possible. The use of cast or rammed lagging will greatly reduce the size and cost of ducts. Rectangular ducts can, with advantage, be made of prefabricated hollow blocks filled with insulation; the roof should be of reinforced concrete. Cinders, crushed slag, rubble, and all materials subject to rotting, should be definitely barred.